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Natural Hazards and Earth System Sciences
Discussions

Interactive comment on "The role of diffraction effects in extreme runup inundation at Okushiri Island due to 1993 tsunami" *by* K. O. Kim et al.

Anonymous Referee #1

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This paper presents a non-hydrostatic approach to modeling the extreme runup values near the Monai Valley on the Okushiri Island during the 1993 tsunami. Since this particular event became an established field benchmark problem for tsunami models used in the USA for tsunami inundation mapping, the results are especially valuable for the tsunami modeling community. Also, the model experiments with the islands and their diffraction properties demonstrated once again that the islands do not protect the coastline behind them from the incoming tsunami front, which is an important result.

The paper is well written, and the discussion was easy for me to follow, partially because I am pretty familiar with this particular numerical problem and the benchmark.

There are just some minor corrections:

Page 6917, line 18: "surmise" - something is misspelled here Page 6919, line 16: "can be in more detail" - the verb is missing Page 69120, line 9: "run-up of tsunami run-up" - redundancy

Figures 3,6,7 - please specify units for the color bars.

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., 2, 6909, 2014.